

Claims

1. Halogen free flame-retarded thermoplastic polyester moulding composition comprising a thermoplastic polyester and melamine cyanurate, characterised in that the composition consists of:
 - 5 (A) a polymer composition consisting of a
 - a) 30-67 mass % of at least one thermoplastic polyester polymer and
 - b) 0-15 mass % other polymers, of which 0-0.3 mass % of a fluorine polymer,
 - (B) a flame retardant system consisting of
 - a) 33-55 mass % melamine cyanurate,
 - b) 0 to less than 2 mass % of a phosphorous containing flame retardant not comprising elementary phosphorous, and
 - c) 0-5 mass % of an inorganic flame retardant synergist not comprising phosphorous, and
 - 10 (C) 0-10 mass % other additives, of which 0-5 mass % fibrous reinforcing agents,
and wherein the sum of components (A)-(C) totals 100 mass % and all the mass percentages are relative to the total mass of the composition.
- 20 2. Composition according to claim 1, wherein the thermoplastic polyester is a poly(alkylene terephthalate).
3. Composition according to claim 1 or 2, wherein the polymer composition consists of poly(butylene terephthalate) or poly(ethylene terephthalate), or a mixture or copolymer thereof, preferably is poly(butylene terephthalate).
- 25 4. Composition according to any of claims 1-3, wherein the composition is substantially free of fluorine polymers.
- 30 5. Composition according to any of claims 1-4, wherein the other polymer (A-b) is a rubbery impact modifier.
6. Composition according to any of claims 1-5, wherein the composition comprises 37-45 mass % melamine cyanurate, relative to the total mass of the composition.
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7. Composition according to any one of claims 1-6, wherein the flame retardant system contains less than 1 mass %, relative to the total of the sum of components (A) – (C), of the phosphorous containing flame retardant (B-b).
- 5 8. Composition according to any one of claims 1-7, wherein melamine cyanurate is the sole flame retardant additive.
9. Composition according to any one of claims 1-8, wherein the composition is free of fibrous reinforcing agents.
- 10 10. Composition according to any one of claims 1-9, wherein the composition has a P-content of below 0.25 mass % relative to the total mass of the moulding composition.
- 15 11. Composition according to any one of claims 1-10, wherein the composition consists of:
 - (A) a polymer composition consisting of
 - a) 30-65 mass % of at least one thermoplastic polyester polymer and
 - b) 0-15 mass % other polymers, not containing a halogen containing polymer,
 - (B) a flame retardant system consisting of
 - a) 35-50 mass % melamine cyanurate, and
 - b) 0-3 mass % of an inorganic flame retardant synergist not comprising phosphorous, and
 - 25 (C) 0-10 mass % other additives, not comprising fibrous reinforcing agents, and wherein the sum of components (A)-(C) totals 100 mass % and all the mass percentages are relative to the total mass of the composition.
- 30 12. Moulded part for use in electrical or electronic applications, comprising the polyester composition according to any one of claims 1-11.